



Figure 7-9.—Coca leaf.

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resemble the congested nose of a common cold and may cause damage to the septum of the nose. Less commonly, for heightened effect, the drug is injected directly into the bloodstream. Cocaine may also be smoked by free basing. Free basing is a process using a solvent to convert the cocaine to a base. The solvent itself is dangerous and the smoking can result in overdose. This is because the drug immediately enters the bloodstream and the user cannot control dosage. Unlike such drugs as LSD and heroin, cocaine is popularly accepted as a recreational drug, facilitating social interaction. It is erroneously said to be relatively safe from undesirable side effects. Because of the intensity of its pleasurable effects, cocaine has the potential for extraordinary psychic dependency, which is all the more deceptive in view of its reputation as the recreational drug of choice.

Tolerance seldom develops; however, recurrent users may resort to larger doses at shorter intervals until their lives are largely committed to their habituation. Anxiety, restlessness, and extreme

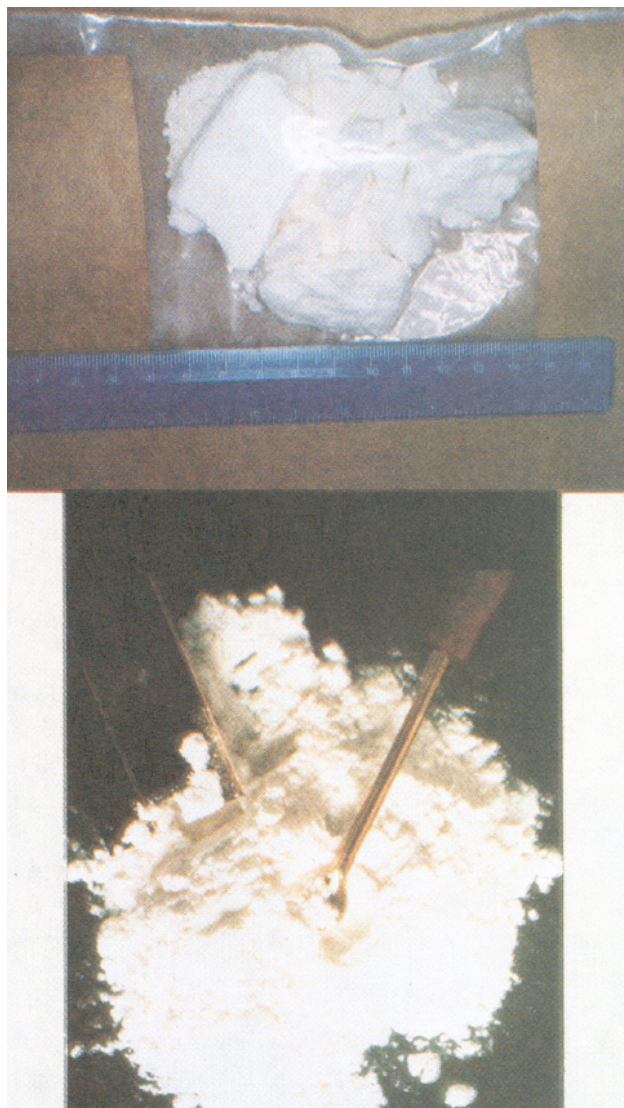


Figure 7-10.—Cocaine.

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irritability may indicate the onset of a toxic psychosis similar to paranoid schizophrenia. Tactile hallucinations so afflict some chronic users that they injure themselves in attempting to remove imaginary insects from under the skin. Others are persecuted by the fear of being watched and followed. Excessive doses of cocaine may cause seizures and death from respiratory failure.

Some drug abusers use cocaine with other drugs such as morphine or heroin. Combination shots of cocaine and heroin, cocaine and morphine, or all three are called “speedballs.”

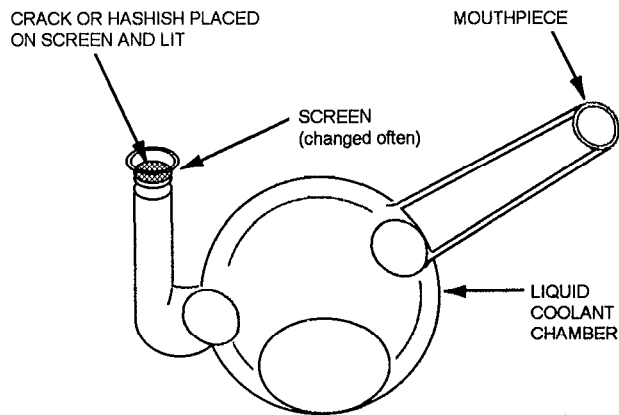


Figure 7-11.—Crack pipe (glass).



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Figure 7-12.—Crack cocaine.

Cocaine Free Base and Crack

Traditional cocaine free base is smoked through a water pipe in which the substance was originally produced or sprinkled on a marijuana or tobacco cigarette and smoked. Crack is sprinkled on a marijuana or tobacco cigarette or mixed with either of these substances and smoked in a pipe. See figure 7-11.

Free basing is a process of converting cocaine hydrochloride (HCL) back to cocaine base for smoking. Traditional free basing involves heating ether or other flammable solvents as a critical part of the extraction process. This procedure creates an extremely hazardous situation in which risks of explosion and fire are quite high. Crack, on the other hand, eliminates the use of flammable solvents and the risks of explosion and fire.

1. Free base procedure:

Baking soda or ammonia, plus ether, are added to water and cocaine HCL. The mixture is heated, evaporating the ether, resulting in cocaine free base.

2. Crack procedure:

Baking soda or ammonia, and water, are added to cocaine HCL. The mixture is heated and cooled, then filtered to collect the crystals. The results of the process is cocaine base (crack) (fig. 7-12).

FREEBASE PROCESS	CRACK PROCESS
– REMOVES DILUENTS	– REMOVES DILUENTS
– SOLVENTS USED	– DOES NOT REQUIRE SOLVENTS
– DANGER OF EXPLOSION/FIRE	NO DANGER OF EXPLOSION/FIRE
– POWDERY MATERIAL PRODUCED	– HARD FLAKY MATERIAL PRODUCED
– END PRODUCT IS COCAINE FREE BASE	– END PRODUCT IS COCAINE FREE BASE

NOTE

These processes do not remove adulterants such as lidocaine, procaine, and so on.

Upon inhalation, both free base and crack are rapidly absorbed by the lungs and carried to the brain within a matter of a few seconds. The user experiences a sudden very intense rush with an equally intense high or euphoria lasting from 2 to 20 minutes. The euphoria suddenly subsides into a feeling of restlessness, irritability, and, in some cases of sustained use, post-euphoria depression. This post-euphoria period may be so uncomfortable that free base and crack smokers continue smoking, often in marathon binges, until they become exhausted or run out of cocaine.

Cocaine smoking as either free base or crack is a much more serious physical and psychiatric problem than inhaling (snorting) cocaine HCL. An enormous craving results from the rapid alternating euphorias and depressions, and the smoker tends to become compulsive and less able to control the amounts of drug used. Consequently, dosage and frequency of use tend to increase rapidly. Cocaine smokers are quite likely to develop extreme dependency in a short amount of time. Overdoses can result in fatal cardio-respiratory arrest.

Symptoms of cocaine smoking include weight loss, increased heart rate and blood pressure, depression, and paranoia. Hallucinations, manic depressive, or paranoid psychoses may be encountered in heavy users. In addition, law enforcement, paramedical, and medical personnel should be aware that the potential for violence and suicidal behavior are quite high.

among individuals who are either under the influence of the drug or, during the post euphoric period, develop withdrawal symptoms including chills, tremors, muscle pains, overeating, lethargy, and acute clinical depression.

Ecstasy

Ecstasy is the designer drug of the 1980s. Until 01 July 1985, ecstasy was just such a drug. Ecstasy has since been reclassified as a Schedule I drug, or one that has "no currently accepted medical use, and for which there is a lack of accepted safety for use of the drug." The designer drug ecstasy is in fact methylenedioxymethamphetamine or MDMA for short.

Ecstasy is not a new drug, for it has been around for over 75 years. Initially it was meant to be used for appetite suppression, but because of its side effects such as nausea and vomiting, it was never marketed. It can be found on the streets under the names XTC, ecstasy, Adam, Eve, Mdm, M&M, X, essence, the yuppie drug, Zan Venus and E.

Users of ecstasy claim to achieve feelings of self-confidence, expanded mental power, spirituality, love, or just good feelings. And while some users hallucinate,

most experience distortions of reality. Perhaps the most chilling aspect of ecstasy's use is the very fact it is a street drug. This type of drug is rarely pure, has no quality control during manufacturing, and can have from no amount of MDMA to any amount in any pill of ecstasy.

Any amount of MDMA can produce ill effects and physical or psychological manifestations (fig. 7-13).

MDMA may produce psychotic states that last for weeks. Since it alters the physiology of the brain, depression may occur for months after use. The drug may release suppressed emotions and result in a bad trip.

Ecstasy has the effects similar to that of LSD plus an amphetamine. Its desired effects are short-lived and may leave the user with long-term consequences, especially with repeated use.

Ecstasy can produce addiction in a very short period of time. Use of the drug is mainly found in, but not limited to, adolescents and young adults.

Methcathinone

Methcathinone is a pharmacologically active compound having a chemical structure very similar to that of the psychomotor stimulants,

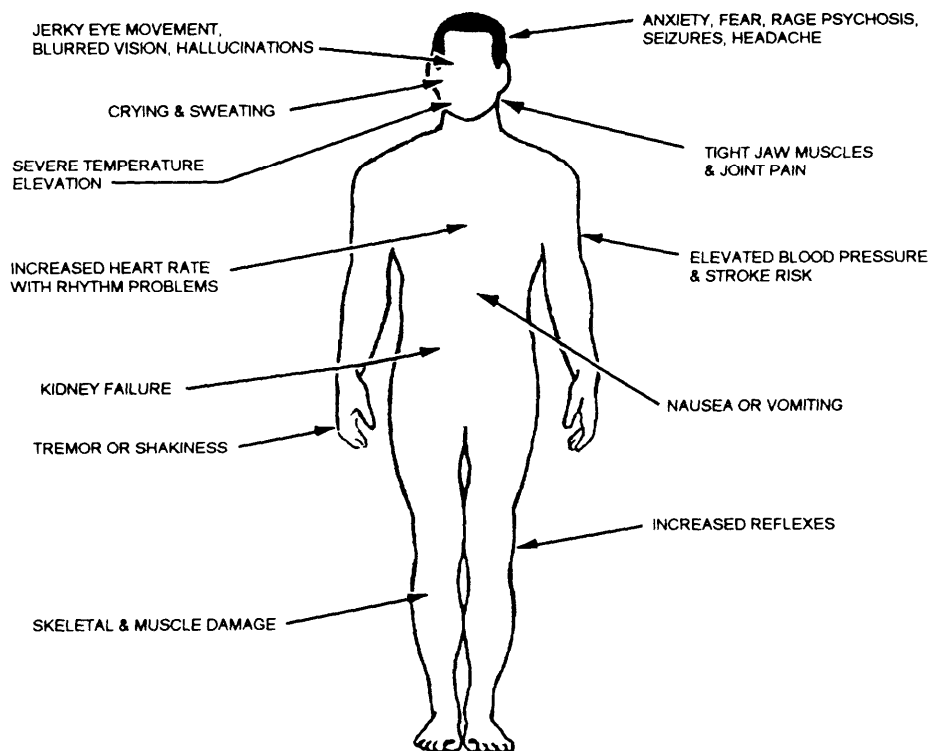


Figure 7-13.—Physiological effects of ecstasy.

methamphetamine and cathinone. It may be considered an analogue of these two stimulants. Cathinone is the primary active ingredient in the Khat plant. The leaves (containing cathinone and cathine) of the Khat plant are chewed for their euphoric and stimulant effects. Cathinone is currently in Schedule I of the 1971 Convention of Psychotropic Substances. On February 4th, 1993 in order to meet the obligations of the Psychotropic Convention, cathinone was permanently placed on Schedule I of the FCSA. As of October 15th 1993 methcathinone was permanently placed in Schedule I of the FCSA. Cathinone is not available for medical use in the United States.

Other names for methcathinone include methylcathinone, L-enantiomer, ephedrone, monomethylpropion, N-monomethylcathinone, a-N-methylaminopropiophenone, 2-(methylamino)-propiophenone, a-(methylamino)-propiophenone, a-N-methylaminopropiophenone, 2-(methylamino)-1-phenylpropan-1-one, AL-464, UR1431, and UR(W)1431. Ephedrone is the primary name used to indicate methcathinone in the scientific and medical community in Russia where ephedrone abuse has been and still is a big problem.

The actual effects of methcathinone in humans has only been reported to a limited extent in the scientific or medical literature. Anecdotal reports from the street indicate that methcathinone produces central nervous system stimulant effects similar to those produced by amphetamine, methamphetamine, and cocaine. Desirable effects have been reported from the use of methcathinone include a speeding mind, increase feeling of invincibility, and euphoria. Undesirable effects reported by people using methcathinone in binges primarily include paranoia, hallucinations, nervousness, insomnia, stomach pain, sweating, dehydration, anorexia, increased blood pressure, and pounding of the heart. The duration of the high is several hours and will depend somewhat upon the dose given.

Doctors working in the emergency rooms of a number of hospitals have been warned about the possible toxic effects of methcathinone. As of December 1993, U.S. scientific literature has described four emergency room cases of methcathinone. Also, at least one report in the scientific literature has briefly mentioned that ephedrone has caused deaths in the Soviet Union. No documentation for these claims was provided by the authors.

A very limited number of studies in laboratory animals indicate that methcathinone produces psychomotor stimulantlike effects similar to those produced by amphetamine, methamphetamine, cathinone, and cocaine.

Methcathinone is sold on the street in the hydrochloride salt form under the street names of "cat," "crank," "goob," and "speed." It is sold as a white to off-white powdered material, similar to cocaine. To date, only the L-enantiomeric form of methcathinone has been found on the street.

The primary route of administration is intranasal. The powdered material is cut into lines which is then snorted up into the nose in a manner similar to that of the snorting of cocaine. Methcathinone is also known to be administered by intravenous injection, smoking, and oral ingestion. Methcathinone is primarily used in a binge which last 2 to 7 days, during which time the person repeatedly administers the drug every 20 minutes to 2 hours. Each dose given ranges from 1/16 of a gram to 1/4 of a gram.

The clandestine synthesis of methcathinone appears to have started sometime around 1989 or 1990. Michigan law enforcement officials first became aware of methcathinone in January 1991. The first actual street sample (confirmed by analysis in the crime laboratory) of methcathinone was obtained by law enforcement officials in Michigan in February, 1991.

Methcathinone has been heavily abused in the former Soviet Union. It first appeared in the Soviet Union in 1982. By 1986 methcathinone was extensively trafficked and was a major drug of abuse. There it is known, not as methcathinone, but as ephedrone. It is sold on the streets in the liquid form supposedly under the street name Jeff.

Methcathinone is made by the oxidation of ephedrine in clandestine laboratories. In the United States, the primary source of ephedrine is from pharmaceutical warehouses where large numbers of 25-mg ephedrine tablets can be purchased. Oxidation is accomplished using a suitable oxidizing agent such as sodium bichromate (primary oxidizing agent used in the United States) or potassium permanganate (used in Russia). A base is required for the extraction and suitable acid is required for conversion to the acid salt form.

As of 1 January 1994, approximately 49 clandestine laboratories making methcathinone have been seized by federal, state and local law

enforcement agencies in six different states. Some of the materials characteristically found in these laboratories include filled and empty bottles of 25-mg ephedrine HCl tablets, sodium dichromate, acids such as battery acid, ephedrine salts, Red Devil lye, toluene, acetone, coffee filters, magnetic stirrers, and various types of chemical glassware.

Ephedrone, illicitly trafficked in Russia, is made in clandestine laboratories, also via the oxidation of ephedrine. The ephedrine is obtained from solutions of ephedrine hydrochloride that is obtained from various ephedrine preparations made in Czechoslovakia and Bulgaria. The principal route of oxidation uses potassium permanganate in the presence of acetic acid.

It is important that all encounters with methcathinone be reported to the DEA, particularly to the Drug and Chemical Evaluation Section, Office of Diversion Control. This should be done by contacting your local NCIS office.

The finished product, methcathinone HCl, contains at most only very trace amounts, if any at all, of the base. Analysis of cat samples by the DEA Chicago Laboratory has shown that the methcathinone is very pure (95 percent to 100 percent pure). If there are any impurities, then it would be most likely unreacted ephedrine and dimerization products. Also note that the cat contains at most trace amounts, if any, of battery acid.

Amphetamines

Today the legal use of amphetamines is limited to the treatment of narcolepsy (a rare disorder resulting in an uncontrollable desire for sleep), peritonic behavioral disorders in children, and certain cases of obesity. The amphetamines are synthetic, nonnarcotic dangerous drugs related to a group of compounds generally known as sympathomimetic amines that act like adrenalin on the body. Amphetamines have a marked stimulating effect on the central nervous system.

Amphetamines are widely used by such people as truck drivers and night watchmen to stay awake or increase alertness. They measurably increase the body's ability to perform physical tasks for a short time. Amphetamines are also used to counteract the effects of depressant drugs.

Amphetamines appear in capsule, tablet, or liquid form. They are most often taken orally but can be injected.

Amphetamine abuse creates mental but not physical dependence. Abuse can also lead to erratic behavior and serious mental disturbance. Severity of psychotoxic effects increase when the drugs are injected intravenously. Some doctors feel that amphetamine abuse can lead to pronounced personality change. Additionally, there is a possibility that excessive amounts of amphetamines can lead to permanent organic damage to the brain.

The illicit use of amphetamines closely parallels that of cocaine in the range of its short-term and long-term effects.

Despite broad recognition of the risks, clandestine laboratories produce vast quantities of amphetamines, particularly methamphetamine, for distribution on the illicit market.

Methamphetamine

Another form of amphetamine is called speed because of its rapid stimulation of the central nervous system. The term *speed* also includes other stimulants and amphetamine-like substances but is most related to methamphetamine because of the stronger reaction. It appears in capsule, tablet, or liquid form, or as a powder in paper or foil packets.

Normal therapeutic doses of amphetamines may be from 5 to 15 milligrams, but drug abusers ("meth heads" or "speed freaks") inject many times that amount—perhaps hundreds or thousands of milligrams in a single dose due to the tolerance they have developed.

With some people, the fascination with speed lies in the initial effect of the drug. Upon injection, a rush or intense feeling of euphoria often results. The rush, like that associated with heroin, has been compared to a sexual orgasm. For this reason, speed is supposed to have aphrodisiac qualities for some users. In others, impaired sexual potency has been reported. Usually, as the abuse progresses, there is a reduction of sexual interest.

The "speed run" is a prolonged period of time over a few days or a week, where the abuser injects methamphetamine as often as is necessary to feel the desired results. During this period, the speed freak usually does not eat or sleep. Initially, he or she may feel a sense of paranoia; then becomes overly

suspicious, hallucinates, and is overactive. The combination of suspicion, hyperactivity, impulsiveness, and irrational thinking has often resulted in aggressive and destructive behavior. After a speed run, the abuser crashes and is in a state of depression and exhaustion. A period of sleep usually follows, lasting from 24 to 48 hours. Upon awakening, the speed user feels depressed and miserable.

Crystal Methamphetamine

Crystal methamphetamine or "ice" first appeared in Hawaii during 1985 but was not recognized as a problem until 1987. During that time, local Filipino gang members were the principal distributors for ice.

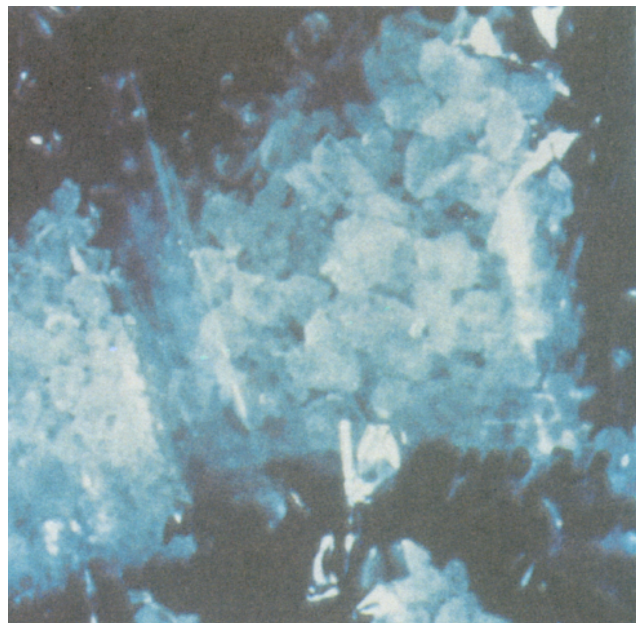
Methamphetamine has often been called the poor man's cocaine and has traditionally been the drug of choice of outlaw motorcycle gangs. It is commonly called meth, crystal (powder form), or crank (long time street term for speed usually referring to the pill variety). In Honolulu, crystal or ice is referred to as the rock methamphetamine, while crank is the term used for the powder form.

Methamphetamine is normally found as a white powder, but is also available in the form of a translucent crystal similar in appearance to "rock candy" or "Hawaiian salt." Ice found in Hawaii is a very pure form of methamphetamine (98 percent to 100 percent purity). See figure 7-14.

Methamphetamine can be injected, inhaled, smoked, or taken orally. In the Honolulu area, the most common method has been to smoke the drug using a glass pipe. Figure 7-15 is an illustration of a meth pipe. It is said that a person can obtain approximately 10 to 15 hits from 1 gram of ice.

Information gathered in the Honolulu area reports that several forms of crystal meth are being used. Most prevalent is the translucent or clear rock crystal. This form of meth is said to be water based and bums quickly leaving a milky white residue on the inside of the bowl. Reports also show that a yellowish crystal meth is also available. This form of meth is said to be oil based. This form of yellow meth is also said to bum slower and last longer leaving behind a brownish or black residue in the pipe.

Crystal meth (ice), is presently being sold in quantities ranging from .10 gram to an ounce. The price for .10 gram is about \$50, with the cost of an ounce going for approximately \$7,000.



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Figure 7-14.—Crystal methamphetamine (ice).

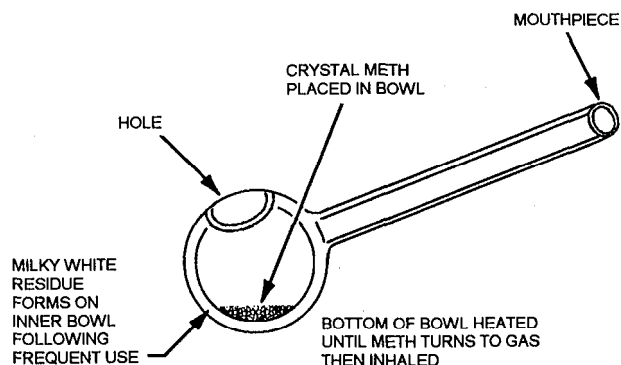


Figure 7-15.—Meth pipe.

Users feel an intense wave of physical and psychological exhilaration. The effects of the drug may last from 4 to 6 hours for a single dose and with repeated doses lasting much longer. Although entering the bloodstream rapidly, large doses may be excreted into the urine, unchanged, up to 72 hours after ingestion. The use of methamphetamine tends to keep the user awake and alert and provides temporary mood elevation; continued use causes the body to deplete its stored energy. This lack of sleep or rest prevents the replenishment of these reserves. Insomnia is usually followed by sleeping for long periods of time.

The drug tends to overtax the body and causes the body to literally bum itself up. Vitamin and mineral